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FactSheet Extension

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Growing Giant Pumpkins In The Home Garden

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General

Growing giant pumpkins can be a fascinating experience. Before you can master the art of growing a giant, however, you must be familiar with the basic principles of growing pumpkins. This information can be found in the Extension FactSheet entitled "*Growing Squash and Pumpkins in the Home Garden*" (HYG-1620). Once you have become familiar with this information, you are ready to try your hand at growing a GIANT!

Fertilizer and Lime

Always apply lime and fertilizers based on soil test recommendations. Providing adequate nutrients throughout the growing season will insure healthy, vigorous vines, not to mention large pumpkins. Granular fertilizers should be applied as a broadcast application over the soil surface and incorporated into the soil 4 to 6 inches deep a few days ahead of setting out your transplants. Giant pumpkin vines require approximately 2 pounds nitrogen (N), 3 pounds phosphorous (P_2O_2) and 6 pounds potash (K_2O) per 1,000 square feet of growing space. The addition of organic matter (manure, etc.) to the garden is important to establish good soil tilth.

A foliar feeding program should be started after pollination and fruit set have occurred. There are several foliar fertilizers available. Follow label directions and continue application throughout the growing season.

Planting and Space Requirements

Growing giant pumpkins requires an early start. Seeds should be sown individually and started indoors in 12-inch peat pots about the end of April. A well balanced potting medium is recommended. Plants are ready for transplanting when the first true leaf is fully expanded. This is usually 10 to 14 days after seeding.

Transplants can be protected from late spring frost using a floating row cover.

Growing space in the garden is important. Each plant should be allowed approximately 2,500 square feet. This area may sound quite large, but it is essential for vine growth. Pumpkins prefer long hours of sunlight, so select your garden site accordingly. Avoid shaded areas and select an area with good surface and internal drainage.

Irrigation

Pumpkins are shallow rooted, so water slowly with at least one inch of water per week if rainfall is not adequate. More water may be required during hot, windy summer days. Water during morning or early afternoon hours so foliage dries by evening. This helps prevent the spread of leaf diseases.

Trickle irrigation is best, but soaker hoses also work well. Overhead sprinklers are effective; however, wet foliage increases the chance of disease, especially mildew.

Cultural

If planting is done in a well-prepared bed, weeds will seldom be a problem and can be controlled by hand-weeding or hoeing. Continue to remove weeds until the vines cover the ground. At this time, the dense foliage will shade out most weeds.

Plastic mulches are very effective for controlling weeds. Plastic mulches also warm the soil, and can maintain good soil moisture levels. The plastic can be installed when the soil is in good planting condition, any time from a few days to 2 to 3 weeks before planting. If you do not use plastic, pumpkins will benefit from organic mulches applied in the summer after the soil has warmed.

When summer mulching materials are used, such as straw, additional nitrogen is recommended. Mix one tablespoon of ammonium sulfate, calcium nitrate, or nitrate of soda per one bushel of mulch. Apply once or twice during the early growing season. A complete fertilizer that is high in nitrogen may be substituted for any of the above. Apply the fertilizer when the mulch is moist.

Herbicides are also available for weed control. However, only a trained and licensed applicator should apply these materials.

Windbreaks

Windbreaks are necessary to protect young plants that are not fully rooted. Windbreaks should be positioned on plants most susceptible to southwest winds until late June when side-runners are 3 to 4 feet long. The use of a snow fence and burlap can make an excellent windbreak. Covering the vines at each node with soil will help anchor vines down and promote secondary root development.

Insects and Diseases

The planting site of your plants should be rotated each year to reduce the incidence of insect and disease pressure. Without a regular spray program for insects and diseases, your success rate for producing a giant pumpkin can be significantly reduced. An insect and disease control program must be initiated at transplanting. Insects are the primary vectors for transmitting viruses. Once a viral infection has occurred, there is no way to stop it. There are several pesticides recommended for insect and disease control. Check with your local Extension agent for current rates and compounds. You may refer to Ohio Vegetable

Production Guide (Bulletin 672) for current pesticide recommendations. The licensed pesticide applicator will have more options regarding insecticides and fungicides available to them.

Pollination

Although hand pollination is the preferred method to fruit setting, natural pollination by bees will work well. Hand pollination allows for a more controlled genetic cross. Do not begin pollinating until the plant has approximately 200 leaves. Initially it is recommended to allow only 4 to 6 pumpkins per plant. Once pumpkins reach volleyball size, trim back to one pumpkin. The more you reduce the competition for nutrients, the greater your success rate will be for achieving a giant size pumpkin.

Stem Stress

Because of the size and fast growth of these pumpkins, training vines and root pruning is important. This will prevent stem breakage and splitting. While the pumpkin is basketball size, curve the vine 80 to 90 degrees away from the fruit. About 3 feet out from the fruit, curve the vine back in the general direction it was headed. Clip roots 3 feet out on the vine. This will allow the vine to easily move upward as the pumpkin grows. Pumpkins long in shape tend to push the vine forward, resulting in a kink. If this happens, slide the pumpkin back about 4 to 5 inches - this is usually necessary when the pumpkin is about 300 pounds. Pumpkins round in shape are difficult to rotate without damaging the stem.

Shade

To protect the pumpkin from direct sunlight, construct a shade out of burlap or other lightweight material. This will prevent premature hardening of the outer skin and will allow the pumpkin to reach its full genetic potential in terms of physical size.

Cultivars

Be sure to select plant varieties that have the genetics to attain large size. Check seed catalogs and garden centers for possible giant pumpkin seed cultivars.

Harvest/Storing

Pumpkins should be harvested when they have a deep, solid color and the rind is hard. The vines are usually dying back at this time. Cover during a light frost and avoid leaving pumpkins out during a hard freeze to prevent softening.

Refer to the Extension FactSheet "*Growing Squash and Pumpkins in the Home Garden*" (HYG-1620) for more detailed information on storage.

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